CLAIMS

What is claimed is:

1. A power semiconductor module, comprising:

a metal base comprising a heat sink;

a semiconductor chip;

a ceramic substrate;

a circuit assembly body comprising a ceramic plate, an upper circuit plate, and the ceramic substrate, wherein the semiconductor chip is placed on the ceramic substrate which is then placed on the metal base; and

an outer case having terminals formed integrally therein,

wherein a casting method integrally molds the metal base on the underside of the ceramic plate of the ceramic substrate, which has no lower plate. and in which the upper circuit plate is joined to the ceramic plate.

2. The power semiconductor module according to claim 1, wherein the power semiconductor module comprises placing at least one ceramic substrate on the metal base.

3. A power semiconductor module, comprising:

a metal base comprising a heat sink;

a semiconductor chip;

a ceramic substrate;

a circuit assembly body comprising the ceramic substrate, wherein the semiconductor chip is placed on the ceramic substrate which is then placed on the metal base; and

an outer case having terminals formed integrally therein,

wherein an upper circuit plate and the metal base are formed directly by a formation of a layer of molten metal on an upper face and a lower face of the ceramic plate, respectively.